

Sub-D2
16. (New) A vector comprising the nucleic acid molecule of any one of claims 6, 7, 8, 9, or 10.

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Cont
17. (New) The vector of claim 16, which is an expression vector.

18. (New) A host cell transfected with the expression vector of claim 16.

REMARKS

Claims 2-5 were pending in the application. Claims 2-5 have been cancelled and claims 6-18 have been added. Accordingly, claims 6-18 will be pending upon entry of the instant amendments presented herein. Applicants gratefully acknowledge the Examiner's indication of claims 2-5 as free of the prior art.

Support for the amendments to the claims can be found throughout the specification including the originally filed claims. In particular, support for new claim 6 can be found at least at page 6, lines 26-29 of the specification; support for new claim 7 can be found at least at page 10, lines 15-19 of the specification; support for new claim 8 can be found at least at page 3, lines 13-24 of the specification; support for new claim 9 can be found at least at page 10, lines 1-14 of the specification; support for claim 10 can be found at least at page 6, lines 4-8; support for new claim 11 can be found at least at page 63, lines 22-30 of the specification; support for new claim 12 can be found at least at page 63, lines 22-30 of the specification; support for new claim 13 can be found at least at page 4, lines 14-23 of the specification; support for new claim 14 can be found at least at page 4, lines 14-23 of the specification; support for claim 15 can be found at least at page 4, lines 14-23; support for claim 16 can be found at least at page 3, line 25 to page 4, line 13, and at page 5, line 21 to page 6, line 3; support for new claim 17 can be found at least at page 4, lines 4-13 of the specification; and support for new claim 18 can be found at least at page 3, lines 20-24 of the specification. No new matter has been added. Any amendments to and/or cancellations of the claims should in no way be construed as an acquiescence to any of the Examiner's rejections and was done solely to expedite the

prosecution of the application. Applicants reserve the right to pursue the claims as originally filed in this or a separate application(s). Rejections pertaining to cancelled claims will not be addressed.

Objection to the Claims

Claim 5 is objected to because, according to the Examiner, "it is dependent on cancelled claim 1."

Applicants respectfully traverse the foregoing objection. In view of Applicants' cancellation of claim 5, this objection has been rendered moot. Therefore, Applicants respectfully request that the Examiner reconsider and withdraw the subject objection.

Claim Rejections – 35 U.S.C. §101

Rejection of Claims 2-4 Under 35 U.S.C. § 101

The Examiner has rejected claims 2-4 under 35 U.S.C. § 101 because, according to the Examiner, "the claimed invention is directed to non-statutory subject matter." In particular, the Examiner is of the opinion that "Claims 2-4 read on a product of nature as it is not "isolated" and /or "purified". This rejection can be overcome by rewriting the claims to include the following language, for example, "an isolated DNA or cDNA...".

Applicants respectfully traverse the foregoing rejection. Applicants respectfully submit that in view of the cancellation of claims 2-4, this rejection has been rendered moot. Therefore, Applicants respectfully request that the Examiner reconsider and withdraw this section 101 rejection.

Rejection of Claims 2-5 Under 35 U.S.C. § 101

The Examiner has rejected claims 2-5 under 35 U.S.C. § 101 because, according to the Examiner, "the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility." In particular, the Examiner is of the opinion that

Instant claims are directed to cDNAs (SEQ ID Nos: 31 and 56) encoding human proteins having transmembrane domains and eukaryotic cells capable of expressing the cDNAs. There is no specific utility for these nucleotides, except the prophetic recitation of potential uses, which include possible diagnostic and therapeutic use (page: 63, last paragraph to page: 64, 1st paragraph). However, there is no association of the claimed sequences or there products with any particular disease. Also, using these cDNAs as molecular weight markers is not considered a specific use as any protein can be used as a molecular weight marker. The expression profile shown in figure 4 is for clone HP00804 and not for elected clone HP10013. In addition, there are no working examples that demonstrate any specific utility.

Applicants respectfully traverse the foregoing rejection for the following reasons.

Applicants respectfully submit that the rejection of claims 2-5 has been rendered moot in view of the cancellation of these claims. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the foregoing rejection with respect to these claims. The cancellation of the claims should not be construed as an acquiescence to any of the Examiner's rejections and was done solely to expedite the prosecution of the application.

Applicants further traverse the foregoing rejection for the following reasons.

Applicants respectfully submit that *a specific and substantial asserted utility* is immediately apparent from Applicants' specification and the knowledge in the art at the time of Applicants' invention. Specifically, Applicants have disclosed in the specification that SEQ ID NOs: 31 and 56 are expressed in a human carcinoma cell line (see page 35, lines 11-17 of the specification) and thus, are useful as diagnostic markers of cancer (page 63, lines 23-24 of the specification). The nucleic acids of the present invention can be useful to treat or inhibit tumors (see page 89, line 21 through page 90, line 3 of the specification). Furthermore, as disclosed in Applicants' specification, the nucleotides encoded by SEQ ID NOs: 31 and 56 may be used to raise anti-protein antibodies via DNA immunization techniques (see page 64, lines 3-4), through page 33, line 26 of the specification).

Furthermore, the nucleic acids of the present invention are useful in research. As set forth at page 63, line 14 to page 64, line 13 of the specification, the polynucleotides provided by the invention can be used as tissue markers, chromosome markers, and as probes. Thus, SEQ ID NOs: 31 and 56 of the present invention have various "real world" uses.

In view of the foregoing, Applicants respectfully request that the Examiner reconsider and withdraw this section 101 rejection.

Claim Rejections – 35 U.S.C. §112, First Paragraph

Rejection of Claims 2-5 Under 35 U.S.C. § 112, First Paragraph

The Examiner has rejected claims 2-5 under 35 U.S.C. § 112, first paragraph because, according to the Examiner, "the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention."

Applicants respectfully traverse the foregoing rejection. Applicants respectfully submit that the rejection of claims 2-5 has been rendered moot in view of the cancellation of these claims. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the foregoing rejection with respect to these claims. The cancellation of the claims should not be construed as an acquiescence to any of the Examiner's rejections and was done solely to expedite the prosecution of the application.

Applicants respectfully traverse the foregoing rejection because, as indicated above, the claimed invention has specific and substantial utilities and, thus, one of skill in the art would know how to use the claimed invention. Moreover, Applicant's specification discloses ample guidance as to how one of skill in the art would use the claimed invention. For example, Applicants disclose how the nucleic acids of the invention may be generated (page 35, line 12, to page 36 line 13, and page 9, lines 24-30

of the specification), and how these nucleic acids may be assayed for various activities (page 75, line 19, to page 80 line 12 of the specification).

In view of the foregoing, Applicants respectfully request that the Examiner reconsider and withdraw the foregoing section 112, first paragraph rejection.

Rejection of Claim 5 Under 35 U.S.C. § 112, Second Paragraph

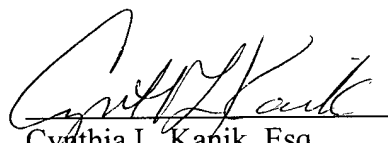
The Examiner has rejected claim 5 under 35 U.S.C. § 112, second paragraph, as “being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.” In particular, the Examiner is of the opinion that claims are indefinite for reciting the term “capable of”.

Applicants respectfully traverse the foregoing rejection. Applicants respectfully submit that, in view of Applicants’ cancellation of claim 5, this rejection has been obviated. Accordingly, Applicants respectfully request that this section 112, second paragraph rejection be reconsidered and withdrawn.

CONCLUSION

Reconsideration and allowance of all the pending claims is respectfully requested. If a telephone conversation with Applicants' attorney would expedite prosecution of the above-identified application, the Examiner is urged to call the undersigned at (617) 227-7400.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read 'Cynthia L. Kanik', written over a horizontal line.

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